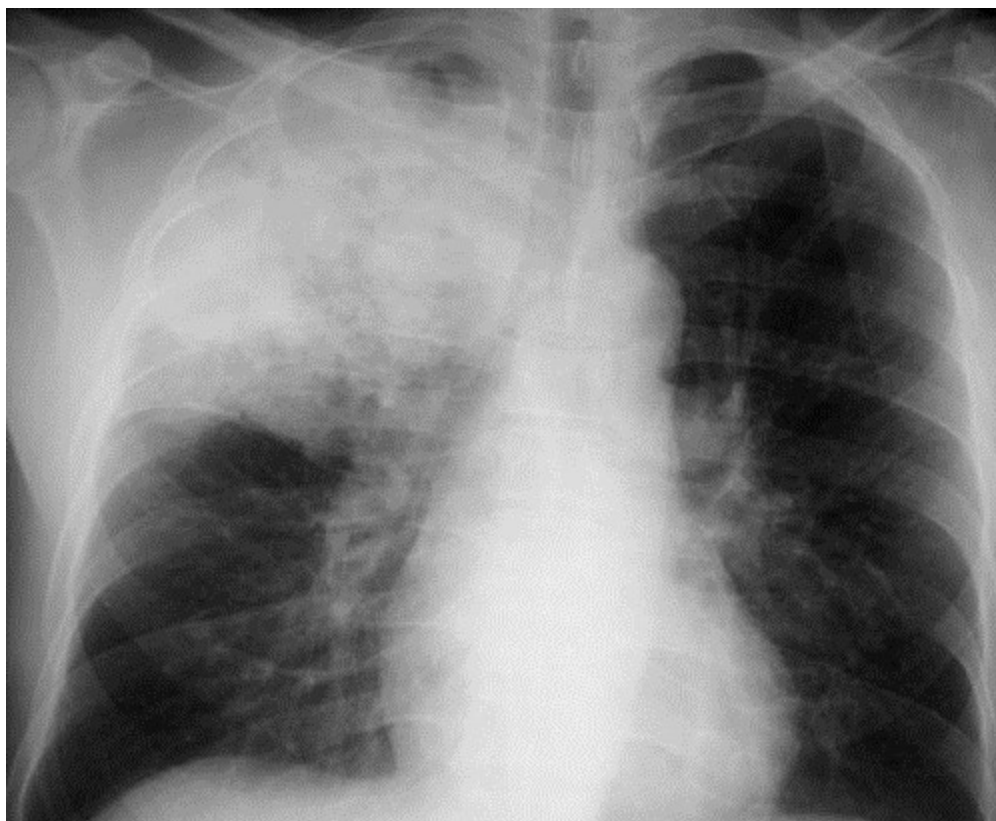


2014 Wyoming Tuberculosis Report



WYOMING DEPARTMENT OF HEALTH



For more information visit the Wyoming TB website
<http://www.health.wyo.gov/PHSD/tb/index.html> or contact:

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2014 Wyoming TB Report—Introduction

The Wyoming Department of Health (WDH) Tuberculosis (TB) Program is located in the Communicable Disease Unit within the Public Health Division. Wyoming is a low morbidity state. The WDH TB Program strives to eliminate TB infections statewide by providing low-cost testing and free treatment for latent and active TB.

Recently, the WDH TB Program has focused on risk-based screening for TB. The program has collected risk factors in the Wyoming Immunization Registry (WyIR) since 2010 and routinely evaluates those data to determine those at greatest risk for infection in the state. Currently, the program recommends the following populations be screened for TB:

- Contacts to active cases,
- Foreign born,
- Homeless,
- Immunocompromised,
- Residents of congregate settings,
- Incarcerated for more than six months,
- Travel to a country with a high prevalence of TB,
- Those with symptoms of the disease, and
- Injection drug users.

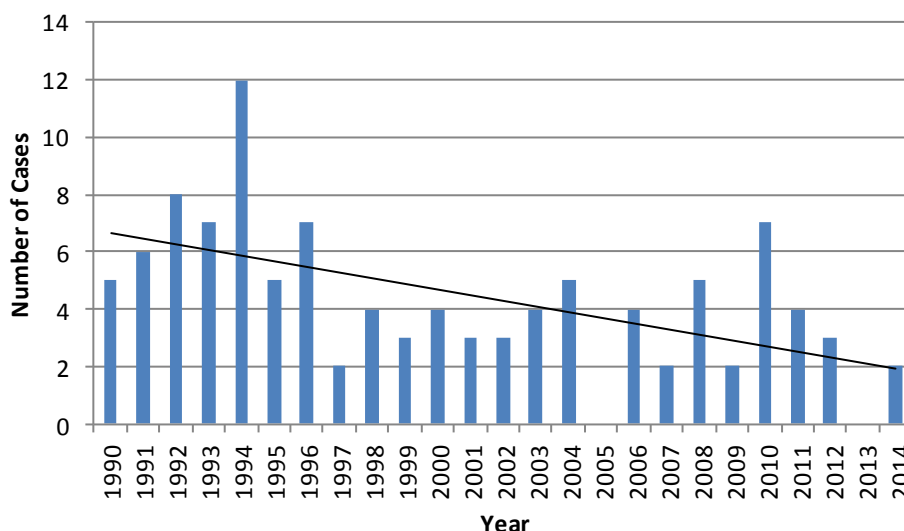
The WDH TB Program trains public health nurses, jail and prison nurses, and other healthcare providers in all 23 counties to place and read skin tests, and provide information about TB such as risks and screening recommendations. The program also helps facilities determine if TB screening is appropriate through a Facility Risk Assessment provided by the Centers for Disease Control and Prevention. The TB Program published a TB Manual for clinics to reference when they have a new latent or active case (<http://www.health.wyo.gov/phsd/tb/manual.html>). Once trained, the program will provide Tuberculin Skin Test (TST) supplies to appropriate clinics free of charge. Uninsured or under-insured individuals who test positive for TB can receive a chest x-ray, liver panel test (if indicated), and latent tuberculosis infection (LTBI) or active disease treatment free of charge. The public health nursing (PHN) clinics also provide directly observed therapy (DOT) for active clients as well as those recommended to take the twelve week, DOT LTBI treatment regimen.

In 2012, the WDH TB Program piloted the use of Interferon-Gamma Release Assay (IGRA) testing for TB. The program now recommends and provides free IGRA testing for foreign born, contacts of an active case, and HIV positive individuals through PHN clinics. In 2014, all PHN clinics in Wyoming had the ability to conduct IGRA testing. In 2013, the Wyoming Department of Corrections began utilizing IGRA testing for the incarcerated population.

This report describes the epidemiology of active and latent TB in Wyoming, the prevention efforts by the WDH TB Program, and the services offered through the program. National data were retrieved from the Center for Disease Control and Prevention (CDC) tuberculosis surveillance reports.¹ Population data were retrieved from the U.S. Census Bureau. All reported Wyoming rates are calculated from 2010 census data.²

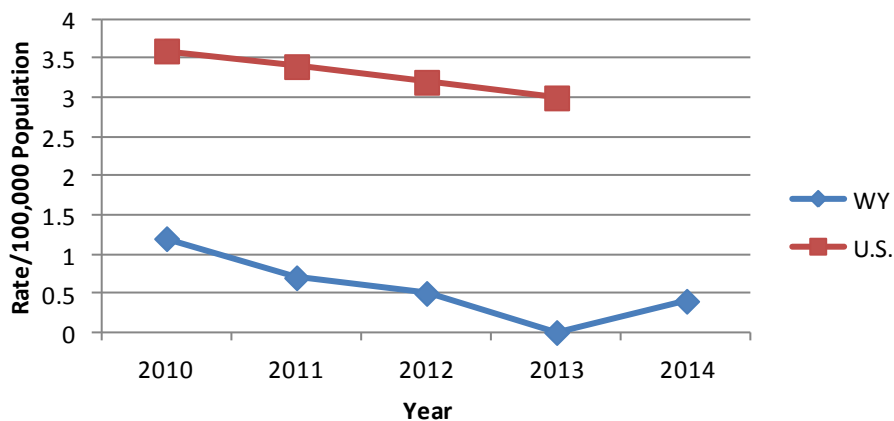
From 1990 to 2014, the average number of active TB cases reported each year was four. The number of cases has decreased overall since 2010 and in 2014, two cases of active disease were reported. Figure 1 displays the number of active cases from 1990 to 2014.

Figure 1. Active TB Disease incidence by year, Wyoming, 1990-2014.



In 2014, the rate of active TB disease was 0.4 cases per 100,000 population in Wyoming. Due to the low morbidity of active TB in Wyoming, changes in rates are difficult to interpret. Figure 2 displays the rate of infection from 2010 through 2014 in Wyoming and the U.S. Nationally, TB has declined since 2010 from 3.6 cases per 100,000 to 3.0 cases per 100,000 in 2013. From 2010-2013 the rate of infection in Wyoming was lower than the rate of infection nationwide.

Figure 2. TB Disease Case Rate per 100,000 Population, Wyoming and U.S., 2010-2014



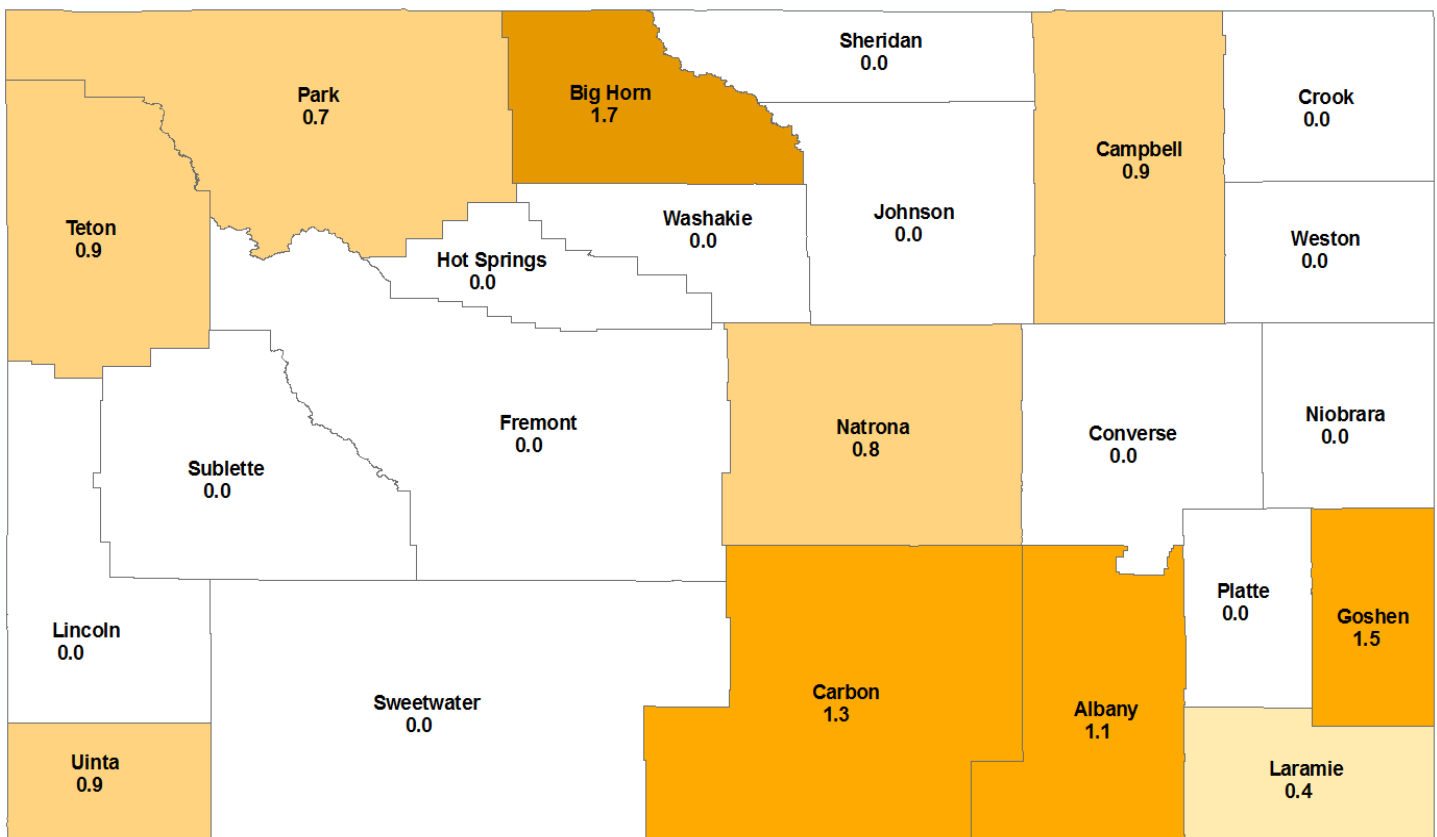
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Table 1 shows active TB cases from 2008 through 2014 by race and ethnicity. A total of 16 active cases were reported from 2010-2014. The highest number of cases (44%) have been reported in Non-Hispanic Whites, followed by Hispanics of all races (31%). No cases were reported in American Indians/Alaskan Natives from 2010 through 2014.

Year	White	Black	AI/AN	Asian	Hispanic	Total
2010	3	1	0	1	2	7
2011	1	0	0	2	1	4
2012	1	1	0	0	1	3
2013	0	0	0	0	0	0
2014	2	0	0	0	0	2
Total	7	2	0	3	5	16

Over the past five years, Big Horn County has had the highest rate of active TB disease followed by Goshen County and Carbon County. Of the 23 counties in Wyoming, 13 did not report an active TB case in from 2010 through 2014. Figure 3 displays the five year average active TB rates by county. In 2014, only two cases of TB were reported in Teton and Big Horn Counties corresponding to a case rate of 4.7/100,000 people and 8.6/100,000 people respectively.

Figure 3. Five Year Average Rate per 100,000 Population of Reported Active TB Disease by County, Wyoming, 2010-2014



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Table 2 shows the risk factors of patients who were screened and provided treatment for active or latent TB through the WDH TB Program from 2011 to 2014. Reliable risk factor data were not collected before 2011. Patients may report more than one risk. The majority of patients started on LTBI medications emigrated from a country with a high incidence of TB, followed by those who were employed in a healthcare setting and those who were in detention for greater than six months. Over 600 people were provided with LTBI medications during that time frame.

Table 2. Reported Risk Factors for Patients Started on TB Medications, 2011-2014	
Risk Factor	Cases
Contact Investigation: Extrapulmonary Case	2
Contact Investigation: Active Pulmonary Case	26
Contact Investigation: Other	4
Employment: Corrections	8
Employment: Daycare	32
Employment: Healthcare	116
Employment: Homeless Shelter	1
Employment: Other	25
Risk Factor: Behavior Risk History	32
Risk Factor: Immunocompromising Condition	8
Risk Factor: Detention >6 months	168
Risk Factor: Homeless	25
Risk Factor: Immigration from Country with High Incidence of TB	246
Risk Factor: Other	43
Risk Factor: Symptoms Consistent with TB	14
Risk Factor: Travel to High-Risk TB Country	53
Total Number of Patients Started on TB Medications	621

In 2014, approximately 87 facilities utilized the WDH TB Program supplies for TB screening. These facilities include PHN offices, treatment facilities, hospitals, long term care facilities, and student health services. Since 2010, the WDH TB Program has worked to change policies from annual testing to annual risk assessments in facilities such as daycare and healthcare facilities in accordance with CDC recommendations.³ The program is also focusing on improving the quality of TB testing by making priority partners in the community experts in the field of TB. Priority partners include PHN offices, state facilities, detention and correction facilities, and substance abuse and treatment facilities.

2014 Wyoming TB Report—Conclusion

Though Wyoming has a low incidence of TB, prevention efforts are imperative in preventing outbreaks and the resurgence of disease. Though TB is declining in the United States, controlling TB in foreign born and others disproportionately affected by disease is essential in meeting national TB elimination goals.¹ The program is committed to screening those at risk and treating those who test positive for active and latent TB. Out of the 129 LTBI patients started on medication through the WDH TB Program in 2014, 39 were screened with a PPD solution and the rest were screened with an IGRA test.

The Program makes recommendations with guidance from the Wyoming TB Advisory Committee. This committee meets biannually and is comprised of health department staff, nurses, and doctors from public, private, and correctional settings around the state. The TB Advisory Committee exists to combine expertise and knowledge to influence TB policies and WDH TB recommendations.

The WDH TB Program and Advisory Committee has established the following goals to direct program activities:

- Continue to evaluate risk data to influence risk-based screening to increase positivity;
- Target treatment and increase adherence to treatment for LTBI;
- Continue working with healthcare facilities and department of corrections to change TB screening policies; and
- Evaluate IGRA data for increased and targeted use.

2014 Wyoming TB Report—References (DRAFT)

1. CDC. Reported Tuberculosis in the United States, 2013. Atlanta, GA: U.S. Department of Health and Human Services, CDC, October 2012.
2. U.S. Census Bureau. State and County QuickFacts, 2010. March, 2013.
3. CDC. Tuberculosis. Atlanta, GA: U.S. Department of Health and Human Services, CDC, August, 2012.